**Layers of the Earth**

It is hypothesized that Earth started as a molten ball about \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. It cooled and the surface became solid. But as it cooled, \_\_\_\_\_\_\_\_\_\_\_\_\_\_ substances have sunk towards the center of the earth and \_\_\_\_\_\_\_\_\_\_\_\_\_ materials have moved towards the surface.



**Crust**

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the earth’s top layer, called the Crust
* Is made from \_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_ which combine to form a group of rocks called silicates.
* There are two main types of rock on the crust. Oceanic plates of rock are usually \_\_\_\_\_\_\_\_\_\_\_\_\_ where continental plates of rock are made of \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**The Mantle**

* The mantle is the thickest layer of the Earth at about \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ thick. It makes up about \_\_\_\_\_\_\_\_ of the Earth’s volume. It is mostly solid and is divided into two sections.
* The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is composed mostly of molten rock with iron and magnesium. It tends to flow with the consistency of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ begins at a transition zone of roughly \_\_\_\_\_\_\_\_\_\_\_\_ deep. It is a solid dense material that contains more magnesium and iron.

**Outer Core**

* The layer below the mantle is the Outer Core. The outer core is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, which is different from all other layers of the Earth. It is \_\_\_\_\_\_\_\_\_\_\_\_\_\_ thick and is a mixture of iron and nickel.

**Inner Core**

* The core is at the Earth’s center and has a radius of about \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* The inner core is composed primarily of iron, though has some nickel too.
* The temperatures within the inner core range from \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. This is four times the melting point of iron, but the incredible pressures at the core keep it solid.

* Scientists believe that the inner and outer cores rotate at different speeds and may be responsible for Earth’s magnetic field.

**Lithosphere**

The crust and the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are solid, these form the lithosphere. The name comes from the Greek word ***lithos***, meaning \_\_\_\_\_\_\_\_\_\_\_.

It ranges in thickness from \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. The solid parts of our lithosphere float on the less rigid part of the Earth called the asthenosphere.

**Asthenosphere**

The zone directly below the lithosphere is the asthenosphere. The name comes from the Greek word asthenes, meaning ***weak***.

The asthenosphere seems to be in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. This motion creates stress on the rock layers above it, forcing \_\_\_\_\_\_\_\_\_\_ of the lithosphere to jostle against each other.